

THE DISTRIBUTIONS OF COMPLEX ORGANIC MOLECULES IN THE ORION KL MOLECULAR CORE

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Abstract:

We conducted high angular-resolution observations toward the massive star-forming region Orion KL at 1.3 mm using the Submillimeter Array (SMA). Spectral emission from twelve complex organic molecules was simultaneously imaged. We discuss the distinct chemical characteristics among four sub- regions in Orion KL by comparing the spatial distributions and fractional abundances of these complex molecules. These observations will allow us to test and constrain chemical models of interstellar organic synthesis.